Outsmarting the art of camouflage

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Outsmarting the art of camouflage

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At Los Alamos National Laboratory, we study camouflage in nature to learn how we can identify things trying to disguise themselves. We do that by looking at marine organisms that are exceptionally good at the art of blending in: flounders, skates, cuttlefish, and octopi.

Take, for example, flounders. They're not completely flat, but they appear flat—with two eyes on top of their heads. Similar to the octopus, they are able to change both the color and texture of their skin to imitate those found on the ocean floor. Identifying them is no easy task. Although animal and human vision have evolved to efficiently perceive a complex visual world by relying on cues such as coherent edges, color contrast, and texture differences, natural camouflage has evolved to frustrate these perceptions to escape detection. In the past, researchers have tried to unravel this conundrum by studying the *workings* of vision. In our research into the *failings* of vision when it comes to detecting camouflage, we're taking a different approach by searching for clues about how visual perception works

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